Bruhat Bangalore Mahanagara Palike

Name of work : Construction of Watch Tower in NES Circle of Yelahanka sub division.

RATE ANALYSIS

(Based on Schedule of Rates for the year 2018- 2019 PW, P&IWTD Bangalore Circle.

Sl. No.	Description of work	Unit	Volume	SR	Item	Basic Rate	AW	Total	TP above 1%	Total Amount in Rs. Ps.
				Page No	No.	in Rs.	8 &10%	in Rs.	1% Above	
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. .iii) Dismantling Stone Masonry. A. Rubble Stone masonry in lime mortar	Cum		139	18.26	289.00	312.12	312.12	3.12	315.24
8	Loading and Unloading of Stone Boulder / Stone aggregates /Sand/ Kanker / Moorum. KSRRB M100-1 : Placing tipper at loading point, loading with front end loader,dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. Basic Rate=Rs.57 Lead=2*1.3*15=39	Cum		136	17.1	96.00	103.68	103.68	1.04	104.72
12	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregate @ 0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms, thick well compacted in foundation including cost of all materials, labour HOM of machinery, curing complete as per specifications with all lead and lift and directions of the Engineer-In-charge of the work.	Cum	1	15	2.1.3	5752.00	6212.16	6212.16	62.12	6274.28

Sl. No.	Description of work	Unit	Volume	SR Page No	Item No.	Basic Rate in Rs.	AW 8 &10%	Total in Rs.	TP above 1% 1% Above	Total Amount in Rs. Ps.
17	Providing and laying in position reinforced cement concrete of design Mix M25 with OPC @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70cum and fine aggregtes @ 0.47cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintels and beams retaining walls, return walls, walls (any thickness) including attached pilasters, columns, lintles, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM curing, complete but excluding cost of reinforcement as per specifications with all lead and lift and directions of the Engineer-In-charge of the work.	Cum	I	17	2.5.2	6492.00	7011.36	7011.36	70.11	7081.47
22	Providing TMT Steel Reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. - TMT Bars Fe 500 with all lead and lift and directions of the Engineer-In-charge of the work.	Tn	III	99	13.1	83780	90482.40	90482.40	904.82	91387.224
E-1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer-in-charge In cement mortar	Cum	II	163	19.7.3	789.00	78.90	867.90	8.68	876.58
E-2	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	II	9	5.4	5352.00	535.20	5887.20	58.87	5946.07
E-3	Providing and laying flooring and steps fine dressed granite stone slabs 40 mm thick on cement mortar bed 1:6, 25 mm thick, and pointed with cement mortar 1:3 over existing cement concrete bed , including cost of materials, mortar, labour, curing complete as per specifications	Cum	II	64	9.29	2383.00	238.30	2621.30	26.21	2647.51

Sl. No.	Description of work	Unit	Volume	SR Page No	Item No.	Basic Rate in Rs.	AW 8 &10%	Total in Rs.	TP above 1% 1% Above	Total Amount in Rs. Ps.
E-4	Construction of Embankment by excavating the available approved Gravel/Murrum deposited at a place or borrow pits during or prior excavation with all lifts and lead, transportation to site, spreading, grading to required slope and compacting to meet the requirement complete as per specifications, including cost of labour,rolling,water,all materials,usage& all other appurtenaces required to complete the work..	Cum	II	7	1.8	402.00	40.20	442.20	4.42	446.62
E-5	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.	Sqm	II	17	6.33	1061.00	106.10	1167.10	11.67	1178.77
E-6	Providing and laying flooring and steps fine machine polished granite stone slabs 20 mm thick on cement mortar bed 1:6, 20 mm thick, and joints finished with cement mortar 1:3 over existing cement concrete bed , including cost of materials, mortar, labour, curing complete as per specifications	Sqm	II	64	9.30	2401.00	240.10	2641.10	26.41	2667.51
E-7	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using M.S. angels 40x40x6 mm for diagonal braces including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge	Sqm	II	75	11.5.1	3660.00	366.00	4026.00	40.26	4066.26
E-8	Providing and fixing M.S. angle 50x50x5 mm to act as nosing with lugs of M.S. flat 10x5 mm, 10 cm long, forked at end 60cm apart (minimum three lugs to be provided), including necessary welding and applying a priming coat of approved primer on exposed surface etc. complete.	Kg	II	60	9.8	112.00	11.20	123.20	1.23	124.43
E-9	Crawler mounted Crane 35 t capacity	Hr	I	A-44	21	4514.10		4514.10	45.14	4559.24

No.	Description of work	Unit	Volume	SR Page No	Item No.	Basic Rate in Rs.	AW 8 &10%	Total in Rs.	TP above 1% 1% Above	Total Amount in Rs. Ps.
E-10	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.) including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge.	Kg	II	83	11.28	500.00	50.00	550.00	5.50	555.50
E-11	Providing and fixing of Ornamental Granite Pillar of overall height of 800mm 200x200sqmm, Octagonal to a height of 820mm and carving design at bottom as shown in drawing .and 280mm respectively as per the approved Design and drawing including quarry cutting to the required size and transporting the same from quarry to work spot\ including loading and un loading with all lead and lift etc. complete as per design and drawing. The work shall be carried out as per design and drawing. Firmly fixed to the ground by means of properly designed foundation of size 300mm x 300mm x 300mm in 1:1.5:3 ratio cement concrete The work shall be carried out as per the engineers in charge of the work etc. and completion of the work as per directions of the Engineer-in-charge of the work.	Nos	Data Rate							12500.00

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				Page No	No.	in Rs.	8 &10%	in Rs.	1% Above	
E-12	Providing and fixing Glass fiber Reinforcement (GFRC) made up of Alkali Resistant Glass fiber which has high durability in cement composition Na20-Ca0-Zr02-Si02(Zirconium 16% min) diameter 13 micro mtr. Fiber Length varying between 18 to 20mm long specifically produced for use in GFRC and complying with PCI-MNL-130. Fixing to existing steel frame work used for purely decorative applications such as window trims, decorative columns exterior friezes or limestone like wall panels and with finishing painting including cost of materials, labour usage charges of machinery and centering works complete as per specification and as per directions of the Engineer-in-charge.	Sqm	Data Rate						24000.00
E-13	Bell for Clock tower bronze sculpture with following specification a) Making of clay modeling as per the approved schematic sketch b) Making of POP negative mould as per the approved clay model c) Making of FRP (Fiber Reinforced Plastic) casting master pattern d) Making of Bronze Metal (88% of copper and 12% of tin) casting by ABC mould by silica sand process with all necessary melting process materials e) Making of hand carving/ Chiseling grinding, brazing, antic bronze oxidizing by acid process including cost of bronze ornamental finishing f) Imported PU Poly utherin lacqor coating g) The height of the bell about 4.5 feet height and dia of 3.5 feet supported on Bell yoke or headstock,with sound bow, Clapper, lip etc,. with a weight of about 140.00 kgs (apporx) including cost t of all necessary raw materials, labour, artizans and semi artizans works including erection, Excluding all applicable taxes etc., (Including Erection and transportation charges etc.,) complete as per the direction of engineer in charge.	Nos	Data Rate						350000.00

Sl. No.	Description of work	Unit	Volume	SR Page No	Item No.	Basic Rate in Rs.	AW 8 &10%	Total in Rs.	TP above 1% 1% Above	Total Amount in Rs. Ps.
E-14	4' 6" Clock with back light, Roman digits, with front glass 1.Clock dial design .... : Roman number dials with central Art work as per your selected clock dials. The numbers will be black vinyl cut letters placed on Food Grade Acrylic Imported Sheet of 5mm Thickness. We will produce the clock dial exactly as per your selected design.2. Machine for the tower clocks..... ..... : We will provide GPS based Machine for the tower clock so that the clocks will work with satellite time signals and will display IST Indian Standard Time. 3. Hands for the clock dials..... .. .. : We will provide One No. Hour hand and One No. Minute hand to show time on the clocks. Both the hands will be made with Aluminium Sheet metal and will be dynamically balanced for smooth travelling on the clock dials. The hands will be finished with black powder coat finish . 4. Working power for the tower clocks..... : The tower clocks will be designed to work with 220 Volts AC Single Phase 50Hz. Electric Power. . Battery back up for the tower clocks..... : We will provide 24 hours battery back-up for the tower clocks. The battery will provide power to the clocks for 24 hours on continuous rating. As soon as the electric power resumes, the clocks will start working with AC electric power. Changing from AC power to Battery power and back to AC electric power will be totally automatic. 6. Time Auto re-set facility in the clocks .... : If the power cut prolongs for more than 24 hours then the clocks will stop working. But as soon as the electric power resume, the clocks will set to right time automatically with GPS time signals received from satellite. With GPS time signals the clocks will	Nos		Data Rate						435000.00

Assistant Engineer
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